Prism/Pro - Prism/PC
Market Assessment

INPUT

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Final Report

Prepared for
CyberMedia

October 1992

INPUT®

Prism/Pro - Prism/PC Market Assessment

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Introduction

A
Background

INPUT was engaged to undertake an examination of the use and provision of technical support services and the market opportunity for a workspace management product. This software product, Prism, is targeted at reducing personal and network based personal computer support costs through the utilization of software which will act as an "expert assistant" by providing information on the status of all accessible resources, proactively detecting and helping to fix hardware, software and network problems; and helping to tune up the system so it is optimally configured. Prism is designed to be used on stand-alone PC's as well as PC's on Netware LANtastic or other networks.

This study was designed to assess the market opportunity for a product like Prism and to elaborate on the market potential by offering an assessment of the functional characteristics of the product, a market entry strategy, and an understanding of the existing market competition.

The targeted markets for this product include, PC manufacturers/vendors, outsourcers and system integrators, system administrators, and PC users.

B
Methodology

Structured telephone interviews were used as the primary means of research for this report. The two classes of interviewees were external providers of technical support services (this group includes outsourcers) and system administrators.

Two questionnaires were developed in conjunction with CyberMedia for use in the interview process. (A copy of each questionnaire is available in Appendix A.)

1. User Interviews

The first questionnaire was used to conduct interviews with 17 system administrators. These interviews were completed on September 25, 1992. The interviews were distributed across a variety of sizes and types of businesses.

2. Provider Interviews

Five interviews with original equipment manufacturers (OEMs) and professional services firms were completed. In general, respondents were selected on the basis of their knowledge of diagnostic tools and technical support services. Respondents were well informed and able to answer virtually all questions, though questions dealing with the size and costs of their technical support services were declined.

In general, respondents were selected on the basis of their knowledge of diagnostic tools and technical support services. Only high level contacts were interviewed including heads of technical services, program managers for help desk, or senior managers within OEM or outsourcing companies.

C

Structure of This Report

This report was intended to capture key findings and recommendation in preparation for a meeting with investors on October 9, 1992. For this report, the following items are included:

- Market Size and Channels
- User Requirements for Technical Support
- Functional Characteristics of the Product
- Competition
- Overcoming Barriers to Entry
- Conclusions and Recommendations
- Copies of the Questions *(Appendix A)*

II
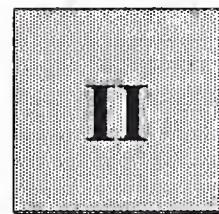
Executive Summary

CyberMedia commissioned INPUT to conduct a study based on primary and secondary research that would address the need for information on the potential market sizes, competition, features and functional requirements, and potential barriers to entry for a network management/desktop utility.

To obtain the information necessary to address these and other questions INPUT developed a field research approach designed to gather information on product functionality, market opportunities, and market channels.

In addition, INPUT performed secondary research to gather all available information about potential competitors, channels, and market forces.

CyberMedia requested that INPUT develop an approach which will focus on OEM manufacturers, systems integrators and outsourcers as the best potential channels for this initial study.

A
Project Objectives

- Develop an estimate of the current market size and five year growth potential for the CyberMedia product offering derived from existing INPUT data and validated by field research.

- Identify key competitors participating in CyberMedia's target market, and offer comments on product positioning.

- Provide recommendations to CyberMedia on how to overcome potential barriers to market entry.

- Prepare an objective evaluation of the product and prospects for adoption by key channel participants.

B

Principal Findings

- CyberMedia's product, Prism, appears to be on target in terms of addressing market needs. The survey indicates considerable interest in Prism's capabilities to remotely diagnose PC and workstation problems and to focus on network and software components. Several survey respondents expressed interest in participating in an alpha or beta test as soon as possible.

- Technical support services personnel are interested in a product that would help them differentiate between hardware, software, and network problems. They believe that there is no product currently on the market that can provide that functionality. Current diagnostic products focus primarily on hardware, but the majority of problems are related to the interaction of network, hardware and software components.

- This compelling need for remote diagnostic products appears to be driven in part by huge support costs... and in part by the desire to provide superior service that can act as a differentiator in the era of non-differentiated PC clones.

- Even though the market for personal computers remains flat, an exciting opportunity exists for software and services to support the huge installed base of DOS and Windows/DOS machines.

- Current market offerings are positioned as either network management tools or diagnostic tools focusing on personal computer or workstation performance. INPUT believes that there is a window of market opportunity for a product that combines the functionality of a desktop computer diagnostic tools and a network management application.

- There are four important market participants that are positioned to offer technical support services and are interested in a support application like the one described by CyberMedia: OEMs, Outsourcers, Third Party Service vendors, and consulting firms offering consulting on downsizing.

- The demand for utility and network management software applications has an estimated growth rate of 20% over the next several years..

C

Approach

The following section describes the approach taken by INPUT in assessing market growth, product functionality, and channel approach objectives..

1. Market Forecasts

INPUT utilized its existing market forecasts for systems management software for personal computers and networks and obtained a baseline forecast for the class of software under development by CyberMedia.

Research from INPUT's Client Server study was utilized to supplement the information gathered above to prepare the specific forecasts required.

2. Survey Approach

INPUT developed an interview guide for PC Vendors/Manufacturers, Systems Integrators and Outsourcing firms pertinent to the study objectives and interviewed 5 target companies. (Equal sample from OEM and SI/SO candidates.) A separate survey was developed and utilized for a survey of 17 Systems Administrators.

3. Literature Review

Information was drawn from a literature search of INPUT's library and research databases and all available information was gathered concerning potential competitors, channels, driving and inhibiting forces on the potential market.

D

INPUT Recommendations

- Focus on providing remote access functionality.

- Market/promote unique product features such as the ability to differentiate between software, hardware and network problems and the ability to serve both as a network and workstation manager.

- Position Prism to take advantage of the transition of market operating systems from DOS to Windows.

- Market Prism initially through OEMs, outsourcers and systems administrators.

- Schedule direct or retail delivery of Prism as a secondary marketing strategy.

- Have an outsourcing firm, third party service vendor or OEM participate in an alpha test of the Prism product.

- Investigate marketing opportunities for Prism with professional service firms such as Andersen Consulting who are increasingly involved in developing downsizing applications for their clients.

- Conduct additional research on CyberMedia product functionality and the strengths of competing products.

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III

Market Size and Channels

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As part of the overall study, INPUT was requested to develop an estimate of the current U.S. market size and five year growth potential for products with functionality similar to Prism's. The estimates were made using INPUT's existing market forecast (1991 - 1996) of the software and services industry. This chapter presents estimates for the current market size and forecasts potential growth rates for the next four years. An explanation of how the numbers were derived is included where appropriate.

A

U.S. Software Markets

The total market for user expenditures for applications and systems software products in the United States in 1992 is estimated by INPUT to be $42.3 billion. Of that total, an estimated $19.9 billion will be spent this year by users of systems software products.

Under INPUT's market segmentation scheme, the Prism product would be classified as an *operations management tool* in the *Workstation/PC* sub-segment of the *systems software market*. To provide a context for understanding the market potential of the product Exhibit III-1 shows the 1992 estimated user expenditures for systems software across all major market segments and platform sizes. The sub-segment appropriate to the Prism offering has been shaded.

To insure consistency of interpretation of the numbers, INPUT's definitions of each of these markets, segments and sub-segments has been provided as a separate document.

EXHIBIT III-1

Systems Software Products 1992 Market Estimates (U.S.)

Market Segment	1992 Market $(Millions)	Platform Segment	1992 Market $(Millions)
Systems Control Products	7,500	Mainframe	3,240
		Minicomputer	2,420
		Workstation/PC	1,840
Operations Management	4,570	Mainframe	2,440
		Minicomputer	1,510
		Workstation/PC	620
Applications Development Tools	7,890	Mainframe	3,460
		Minicomputer	2,590
		Workstation/PC	1,840

B
U.S. Market Growth Rates

As noted above, the potential market for Workstation/PC operations management software is estimated for 1992 at $620 million. While this is certainly not the largest segment of the market, a number of factors lead INPUT to believe that it's the fastest growing.

- While the growth rate in PC shipments has slowed down in recent years, the integration of PC's into local area networks (LANs) and client server (C/S) environments has created an accelerated demand for diagnostic and network management software due to the complexity of these environments, and the downsizing of applications from mainframes to distributed environments.

- Growth rates in shipments of products such as the Norton Utilities have exceeded 20% over the past several years, and there are a myriad of new products arriving daily on the market dealing with memory management, LAN management and other support functions required to insure that PCs and Workstations function at high levels of reliability in real time transaction processing environments.

- The high growth rates of operating environments such as Windows and OS/2 will create additional demand for operations management products.

Exhibit III-2 show the anticipated compound annual growth rates (CAGR) from 1991 - 1996 in terms of user revenues for the major classes of systems software products.

EXHIBIT III-2

SystemsSoftware Products Markets
1991- 1996
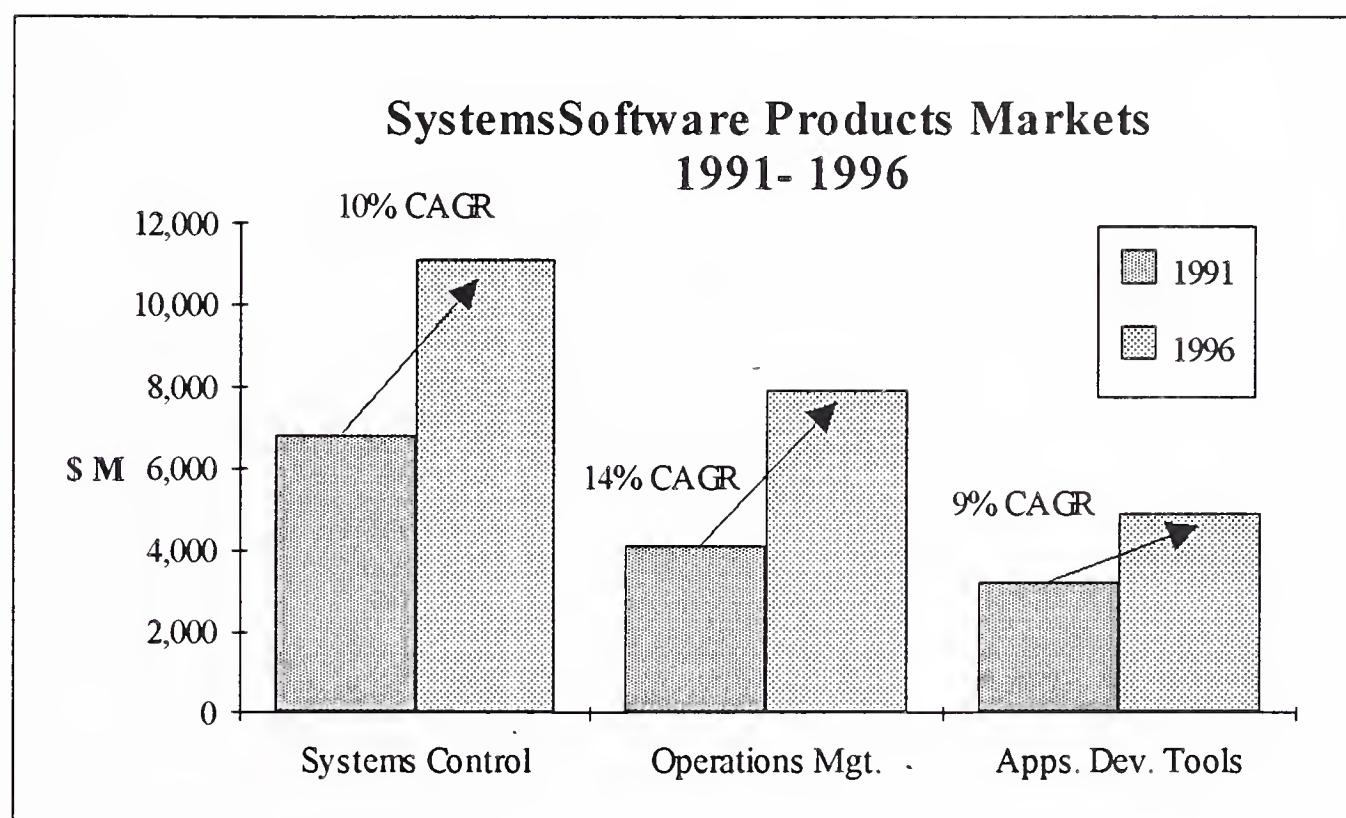
The growth trends reflect an increasing drive to reduce the cost of operating, diagnosing and fixing faults on all classes of platforms and networks.

- At the mainframe level, increased expenditures for operations management software have been prevalent for some period of time. The focus has been on software that will permit "lights out" operation of remote data centers, and on-line preemptive diagnostics.

- The emphasis in the minicomputer area has been automated diagnosis and management of faults across networks of parallel processors.

- In the area of PCs and workstations the "downsizing" of applications environments has forced the integratation of what once were "standalone" PCs and workstations into corporate processing networks that require similar software to perform diagnostic and management activities.

The impact of these trends is even more pronounced when examining the data by platform class. Exhibit III-3 shows the growth rates for all classes of systems software by platform types in U.S. markets from 1991 - 1996.

EXHIBIT III-3

Systems Software Expenditure by Platform 1991-1996
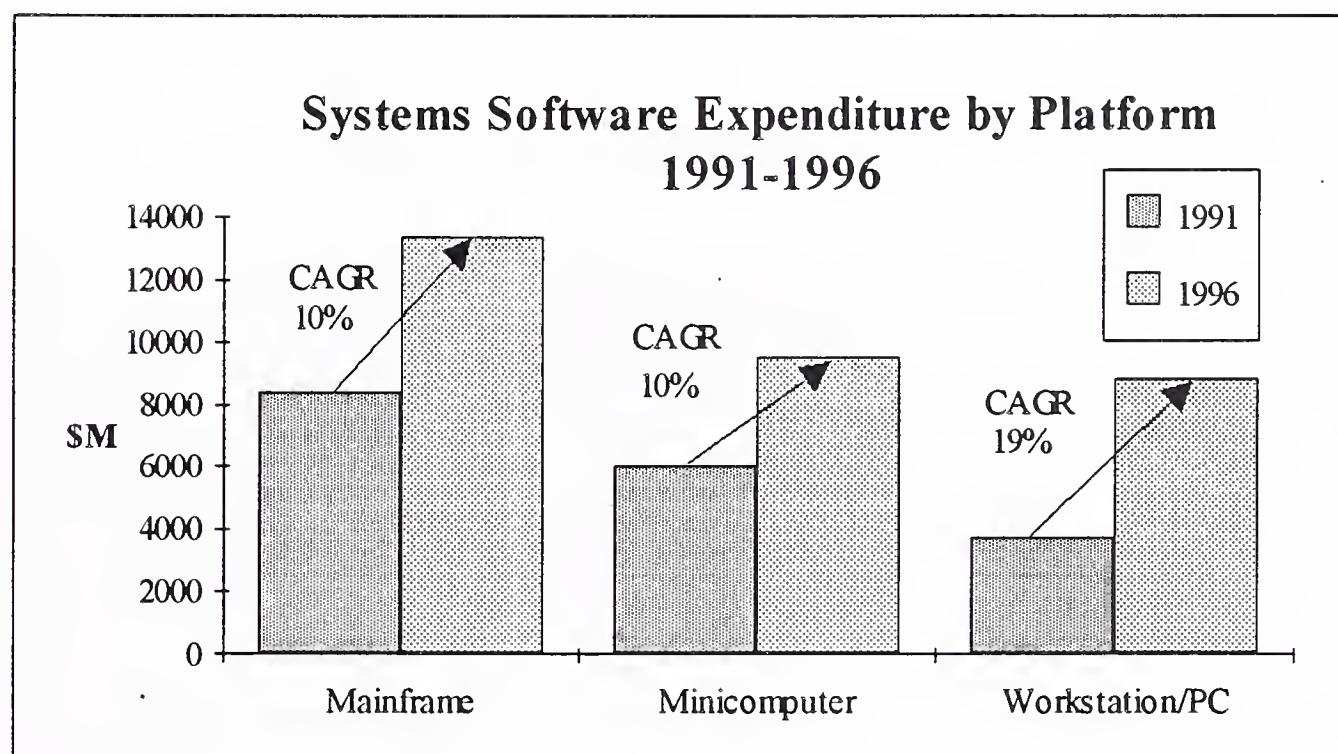
Here again, the Workstation/PC class dominates in terms of forecasted market growth across all categories of systems software. However, the growth trend becomes even more pronounced when examining the sub-segment of operations management software which INPUT forecasts will grow from $620 million in 1992 (See Exhibit III-1) to $1.6 billion in 1996, a compound annual growth rate over the 1991 - 1996 period of **27%**.

C

Market Prospects for CyberMedia

Based on the previous analysis Cybermedia is targeting a U.S. market for operations management software for Workstation/PC platforms that INPUT estimates to be $620 million in 1992, and is likely to growth to $1.6 billion by 1996. Without more extensive market research it is impossible to develop a precise estimate of exactly what the potential is for a product with the functional capabilities or Prism. However, if we take a conservative estimate of market penetration for this class of operations management products of 5%, INPUT believes that the market potential could approximate:

- $31 million dollars in 1992; and,
- Grow to $80 million in 1996.

The key factors in determining whether the potential is realizable are:

- The functional characteristics of the product
- The market entry strategy (alliances/channels)
- The moves of established competition
- The addition to the offering of value-added services

Each of these subjects is discussed in other sections of this report. However, INPUT believes that there is a significant market for products with the functional capabilities of Prism.

D

Market Channels

Most products similar to the Prism offering are sold direct through retail channels. This channel is crowded and there is a lot of price competition. INPUT believes that there are a variety of other channels which would be more effective in terms of bringing the product to market rapidly with minimal marketing costs. The following are INPUT's views on the alternatives.

- *OEMs* - OEM revenues are currently running flat in the U.S. market. As a consequence vendors are looking for ways to differentiate their products. COMPAQ recently announced the bundling of RemotePAQ, software to perform diagnostic functions. Other OEMs will likely follow suit, creating an opportunity for CyberMedia.

- *Third Party Maintenance Vendors* - TPMs are in the business of providing service to mainframe as well as desktop environments. The market is highly competitive, and as a consequence, these firms are looking for software and remote diagnostic capabilities which can improve the quality of service while minimizing the cost of providing it.

- *Outsourcers* - Companies such as EDS or the ISSC division of IBM Corporation have extended their services beyond the traditional mainframe environment to include all manner of networks and desktop services. They undoubtedly will be looking for products which can provide the kind of functionality planned for Prism.

- Although not covered in this survey, INPUT also believes that there are opportunities for Prism with major professional services firms such as Andersen Consulting who are increasingly involved in developing downsized applications for their clients.

While OEM's are a logical starting point, INPUT believes that the other channels discussed above offer significant opportunities for CyberMedia and should not be ignored as primary candidates for marketing the Prism offering.

IV

Technical Support Services

There are two key factors in which should be examined in determining the potential attractiveness of the Prism product offering. They are the architecture of the installed base of desktop workstations (which determine the installed base for potential prospects) and the level of expertise of the users. This chapter presents the results of INPUT's analysis of these two critical factors. As a background consideration it should be kept in mind that:

- The majority of desktop computers in U.S. business environments are DOS or Windows/DOS based (by at least 80%).

- End users want support in diagnosing and resolving systems problems.

- Systems administrators and end users have a wide variety of experience and levels of expertise.

A
Technical Support Services - General Characteristics

1. Technical Support Services Offerings

Technical support services are offered by OEMs, VARs (Value Added Resellers), professional services firms, specializing in system integration and outsourcing, and third part service vendors. Clients will often subscribe to several service providers.

- Typically, technical support services are offered in three distinct areas: hardware support and repair, support of all applications and operating system software, and finally, support for network installations.

- Support services can be purchased in conjunction with:

  - A system integration or outsourcing contract
  - A stand-alone purchase of hardware
  - The purchase of a specific software package

2. Modes of Service Delivery

Support services are typically offered by telephone with on-site visits as back-up. Service providers handle 75-80% of all support problems by telephone. This finding emphasizes the need for remote access to networks or stand-alone PCs. As indicated in Exhibit IV-1 in-house support relies more heavily on on-site visits than remote telephone consultation.

EXHIBIT IV-1

Methods Used In Delivering Service

	In-House Service Providers	Outside Service Providers.
Telephone	40%	86%
On-Site	60%	12%
Return PC		2%

This finding is corroborated by the respondents estimate of percent of times that the computer will not boot up at all, 1.5%.

Outside service providers ranked application software problems first in terms of generating the most support questions. Network problems were second and problems related to hardware configurations were third. The percentage distribution of these problems was as follows:

- Software Applications   64%
- Network Problems   20%
- Configuration Problems   13%
- Hardware Problems   3%

The ranking was the same for system administrators for the first two problem categories, however the second two problems were reversed with system administrators ranking hardware problems higher than configuration problems. Although the sample is small the percentages ranking would be as follows:

- Software Applications   63%
- Network Problems   22%
- Configuration Problems   12%
- Hardware Problems   3%

B

Survey Results - Systems Administrators

1. Services Utilized by Systems Administrator Survey Respondents

Fifty percent of the seventeen systems administrators surveyed were not using any OEM technical support services. This statistic leads INPUT to believe that many of the desktop computer support problems are resolved by internal support staff, demonstrating the importance of appealing to this market segment.

For the 50% of the respondents using OEM technical support the frequency of use averages twice a month with a distribution as follows;

- Once a Week (or more often)   4 Respondents
- Twice a Month   2 Respondents
- Less Than Once a Month   3 Respondents

Respondents were asked to list all outside support services used including OEM as discussed above. The variety of support services mentioned indicates that respondents have a good deal of experience when deciding what service is appropriate in supporting their user base. The following gives a distribution of the outside services subscribed to by category.

- Local Stores   5
- Third Party Maintenance Vendors   3
- Large Value Added Retailers   2
- OEM Support (IBM only OEM listed)   4

2. Desktop Devices Support

The vast majority of respondents to the systems administrator survey are currently utilizing IBM PCs or PC clones.

The breakdown by respondent was as follows:

- 14 IBM/PC
- 7 COMPAQ
- 4 Macintosh
- 1 HP
- 1 Dell
- 1 IBM/OS2

Specific types of clones and other workstations cited by respondents included A. Best, Zeos, NEC, Acer, Everex, Northgate, NCR, and Sun workstations.

It is important to note that respondents indicated a wide variety of desktop machines that they support, and that a preponderance of machines are IBM PCs or PC running the DOS operating system. Of more significance is the fact that a mixture of these devices are likely to be present on a single LAN and/or may share a common network environment.

3. User Characteristics

In the survey, respondents were asked to rate the level of end-user expertise. Exhibit IV-1 shows those ratings.

- 7% Expert
- 47% Computer Literate
- 46% Novice

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V
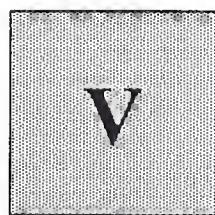
Functional Characteristics of the Product

</div>

A

General Interest in the Product

All respondents, except for one system administrator, in both the user and provider survey populations were interested in a diagnostic product that had software, hardware and network access diagnostic capabilities.

Respondents who provided technical support services (OEMs and outsourcers) were particularly interested in a diagnostic tool that helped them differentiate between hardware, software, and network problems.

In addition, remote access was extremely important for support services personnel, since the majority of their support comes through toll-free calls to an 800 number. Remote access provides an increased level of customer service and could reduce problem resolution time.

B

Pricing Considerations

Respondents were given the opportunity to suggest a price for the Prism offering. The price points suggested fell into the following ranges.

- $100-$200   2 Respondents
- $200-$400   5 Respondents

There was no consensus on the part of respondents with regard to a pricing approach for site licensing pricing. Suggestions included, $200 per user, $400 per LAN, $20K site license, $1K site license, $5K site license

It should be noted that PC utility products or performance analysis programs are priced between $100-$200 for a single machine license. Given the scope of Prism's functionality, INPUT believes that CyberMedia's products would be on the high end of that scale.

C

Functionality

As part of the survey *(See Appendix A)* INPUT asked each respondent to rate various features of the Prism offering. Both systems administrators and outside service providers were asked to respond. Exhibit V-1 shows the average ratings for each class of respondent on a 1 - 5 scale where a 1 indicates little or no interest and a 5 a very high degree of interest.

EXHIBIT V-1

Ratings of PRISM Features and Functions		
Function/Feature	System Administrator Ratings	OEM Outsourcer Ratings
Remote Access	4.0	4.8
Health Check	3.5	4.0
Tune Up	3.5	4.0
Vital Statistics	3.0	3.5
Help Desk	2.8	2.5

In addition to rating the predetermined list of functions, respondents were asked to suggest other features or functions upon which they would place a high value. A synopsis of those responses follows:

• Add a virus scan component was mentioned by two respondents.

• Have the network management tool look at DOS machines but relay it back to a UNIX workstation.

- Add the capability to interface to an internal database that would allow tracking and problem escalation or forwarding.

- Have the ability to format an IDE drive.

Even though the sample was small, respondents seemed to place a high value on most of the features proposed for the Prism offering. Remote Access and Health Check scored exceptionally well. Once a final product specification has been put together INPUT would recommend that a survey be conducted with a larger sample to verify the results obtained above.

VI
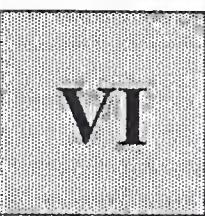
Competition

According to INPUT's survey of the market, technical support services staff utilize a variety of stand alone and network diagnostic tools.

Network diagnostic tools focus on access to the devices on the network and provide other network management functions, while diagnostic tools focus on personal computer or workstation performance.

INPUT believes that there are few products in the market attempting to address the comprehensive sweep of problems that Prism is planning to address. In other words there are no direct competitors.

The current market leader offering diagnostic products for desktop computers is Symantec, holding the majority of market share. However, there are many market participants that offer some selection of analysis or diagnostic programs for lower prices. INPUT believes that the retail market for software of this type will show increasing market competition in 1993. Symantec has maintained its market lead by offering a MacIntosh and a Windows version of its popular Norton Utilities program in 1991; and even though these products do not provide the level of functionality proposed by the Prism offering, they demonstrate the growing demand for diagnostic and utility software. In addition, OEM manufacturers are beginning to provide diagnostic software offerings as part of their product offering. Compaq and NEC have both recently announced such offerings.

A

Market Leader: Symantec

1. Company Description

Symantec remains the undisputed market leader of personal computer utilities, a position it achieved with the acquisition and turn around in 1990 of Peter Norton Computing. Prior to that acquisition Symantec was a little known vendor of several niche products. Symantec reported 1992 revenues of $216 million (FYE 3/31/92).

Symantec's success with Norton Utilities, dominates one of the fastest growing segments in software, according to Robertson, Stephen's software analyst Peter Rogers. Symantec is now garnering recognition for one of the leading Windows products of 1991, Norton Desktop for Windows. Symantec also has built a world-wide distribution network over the last three years.

However, this summer (1992) Symantec's growth has slowed. Company analysts have cited the market-wide shift form DOS to Windows, shifts in distribution form retail to direct distribution, and a surge in utilities sales earlier this year. In addition, the company may face a management shake-up stemming from the controversial hiring of Gene Wolf, a former Borland vice president, and the subsequent legal actions undertaken by Borland.

2. Symantec Product Descriptions

a. Norton Desktop for Windows version 2.0
Price: $179
Symantec Corporation

Symantec's Norton Desktop for Windows 2.0, retailing for $179 and available by mail for about $79 to $119, offer users enhancements to their host operating systems including an Erase Protector, a Shredder, a File Viewer and the SuperFind file locator. The original Desktop for Windows was so well done that Microsoft added some of its features to its new Microsoft Windows 3.1. Norton Desktop for Windows version 2.0 has a wide range of features that lets you extensively customize the Windows environment. It's designed to be flexible enough for both novices and more sophisticated work groups. An administrator's guide is available separately for network installations.

Norton Desktop still adds significantly to Windows' functionality, however, and the installation program thoughtfully allows user to disable redundant or unwanted features to save disk space. It includes a wide range of Windows customization options as well as macro creation functions, although it has not added tape backup support, a surprising omission.

Lack of support for tape backup systems is the program's only glaring deficiency. In August 1992, Symantec Corp. said this problem would be partially corrected when the company would ship disks to users who request them via an box coupon (there's a $12 handling charge for this service). These disks will add support for nine popular QIC 40/80 drives to the Norton Desktop's backup module.

b. Norton Desktop for DOS
Price: $179
Symantec Corporation

Symantec Corporation's new Norton Desktop for DOS has earned praise from early users for combining a character-based graphical interface with several of Norton's well-known utilities. The program offers a visual menuing system and convenient file management; it uses pull-down menus, provides mouse support and lets users display directory trees by pointing and clicking on drive icons. Norton Desktop for DOS also includes a utility that builds a menu of frequently-used applications, a screen saver and the Norton Cache and Speed Disk performance-tuning utilities. Users especially like the product's interface to MCI Mail, as well as its well-designed file management capabilities.

c. Norton Utilities for MacIntosh 2.0.
Price: $149
Symantec Corporation

Symantec Corporation's $149 Norton Utilities for MacIntosh 2.0, which features new backup options and a set of security and disk management utilities, is an essential disk repair and data recovery tool for hard disk owners. Version 2.0's Norton Disk Doctor is able to handle a wider range of scenarios involving damaged volumes. The Disk Doctor's UnErase and Format Recovery commands have also been packed with more power to boost the program's data recovery success rate. Version 2.0 consists of timed-backup capabilities and a completely rewritten Norton Backup. Norton Backup now allows users to back up files on floppies or to a single large file and it can also handle data compression.

B

Product Descriptions

The following section describes and summarizes product reviews for some of the other key competitors in the computer utilities market.

1. CheckIt 3.0
Price: $149
TouchStone Software
Huntington Beach, CA 92648

TouchStone Software Corporation produces a PC diagnostic for $149 entitled: CheckIt 3.0. CheckIt is primarily a diagnostic tool. Its suite of tests will check virtually every part of your PC, from memory chips to disks to ports. The package is an effective diagnostic program that also has performance and system analysis features. However, the program does not analyze a system closely enough to compete with other, more extensive packages.

CheckIt has a well-designed main configuration screen that reveals general data about a user's microcomputer, and according to trade publication reviews does a good job at investigating a system's lower memory. However, CheckIt's limitations are exposed when it investigates upper memory. Overall, CheckIt is a useful hardware testing tool but is lacking as a systems analysis application.

2. CheckIt LAN
Pricing: Check It LAN for NetWare 3.11 is priced on a per node basis, with a 5-node package costing $249, 20 nodes $495, 50 nodes $995, 100 nodes $1,295 and 250 nodes $1,995
TouchStone Software
Huntington Beach, CA 92648

Check It LAN is a network utility program that includes diagnostics, virus scanning, software inventorying, and workstation surveying capabilities. One of the important features to reviewers in CheckIt LAN is its ability to randomly or periodically scan every workstation on the network for viruses.

A 24Kbyte terminate-and-stay-resident (TSR) program must be loaded onto each workstation to run the remote workstation evaluations and reliance on the TSR is a major drawback against the package's transparency for most analysts. Other drawbacks include the concept of

running diagnostics across the network and the time necessary to run full workstation diagnostics.

The accuracy of the information gathered by Check It LAN was rated as good, but the depth of information gathered was not satisfactory to most product reviewers.

The beta version tested (for NetWare 386) had a compatibility conflict with Digital Research's DOS 6.0, but that may be resolved by the time the package is in general release.

**3. PC Tools**
Price: $149
Central Point Software

Symantec Corporation's Norton Utilities 6.01 and Central Point Software Inc's PC Tools 7.1 file management software packages are more similar than different, each offering data recovery and file management features. Norton Utilities' data recovery features perform better, however, and PC Tools offers a better virus checking system and includes a remove computing package. Both programs include undelete functions that help with file recovery, but Norton Utilities proved more reliable. Both programs include disk optimizing features such as surface testing, nondestructive low-level-format refresh and defragging. Norton Utilities allows users to encrypt an entire disk, while both programs allow individuals files to be encrypted.

4. Other Competing Products

Nine other performance analysis and utility programs have been mentioned in the product reviews, all of which help users examine microcomputer's memory, video and hardware setup.

a. ASQ 2.0 (Utility program)
b. Control Room (Utility program)
c. RenaSance Group's InfoSpotter 2.5 (Performance analysis software)
d. Quarterdeck System's Manifest 1.1 (Utility program)
e. QAPlus/Win 5.01 (Performance analysis software)
f. Skylight 2.0 (Utility program)
g. System Sleuth Professional 4.0 (Performance analysis)
h. Dariana Inc.'s WinSleuth Professional 2.0 (Performance analysis)
i. QAPlus 4.61 (Performance analysis)

VII
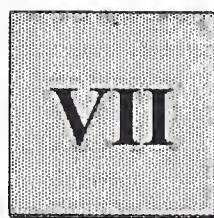
Overcoming Barriers to Entry

Entry barriers exist for all new software products. Platform selection, market strategy including alliances and channels, timing, packaging and, of course, functional capabilities all make a difference. This chapter gives INPUT's views on key barriers to entry for CyberMedia's proposed offering, and recommends approaches to minimize the risks.

The primary barriers to entry for the Prism product offering are as follows:

- Established competition
- Heterogeneous platform environments
- Timing
- End-user lack of interest

A

Established Competition

While the scope of features and functions intended for the Prism product goes beyond most of the existing products on the market, there is certainly no shortage of PC utility and performance monitoring software out there. Symantec produces a number of products that target this market and has become to some degree a de facto standard. Checkit LAN deals with diagnostics across the network. PC Tools by Central Point Software is comparable to Norton's Utilities including a virus check capability. In order for a new firm to establish itself in this market, it will need to be creative about its market entry strategy. Some possible suggestions include:

- *Consider other software companies as alliances.* It is not out of the realm of reality to assume that companies like Microsoft and Symantec would be very interested in forming an alliance with CyberMedia, giving it access to established and very large markets.

- *Achieve rapid distribution through OEMs.* Compaq appears to be the first OEM to be distributing diagnostic software as part of its product offering. Surely others will follow suit. Dell and or another quality manufacturer should be approached as soon as product designs are firm.

B

Heterogeneous Platform Environments

The targeted environment for the Prism offering is the DOS/Windows platform in either standalone or networked (LAN-based) environments. In reality a high percentage of LAN-based networks are likely to have one or more workstations that are of some other architecture. Apple and/or Sun workstations are increasingly common in these configurations, and OS/2 while not the dominant environment today will become more popular over time.

It appears to INPUT that the only way to deal with this potential barrier is through the design of the product itself. At a minimum, the product should be able to operate on LANs that have non-IBM based workstations, and provide full functionality, at least to the connected PCs or clones. Over the long term, the product could probably be extended to provide the same functionality to non-IBM workstations.

C

Timing

INPUT believes that the "window of opportunity" is **now**. Although INPUT is not privy to any factual information about major software efforts underway which might block the market for Prism, there is a lot of activity which would indicate that various prospects for purchase, distribution or use of the product are already beginning to decide on their strategies with regard to desktop utility and performance management software.

- It appears that Microsoft will be incorporating a lot of the kind of functionality currently provided by Symantec offerings into its next version of Windows.

- As previously mentioned, Compaq is already distributing diagnostic software in the form of RemotePAQ with new machines.

- EDS and others in the outsourcing business are under increasing pressure to have some way of providing the kind of software based technical support that Prism could offer.

The only way that INPUT could suggest to deal with the timing issue is to make sure that potential channels are aware of the opportunity as soon as possible. Rather than wait until the Prism product is operational, it might be wise to proceed with marketing in parallel with product development.

D
End User Interest

From the point of view of most novice and even literate end-users diagnostic and maintenance utility software has not been a high priority investment. Most won't spend the money individually until they are forced to by some problem with their system. Nevertheless, Symantec has been quite successful in fulfilling that need, despite the fact that early versions of the product were perceived as difficult to use.

INPUT believes that the best way to overcome this problem is to focus on the channels that are serving corporate environments, the OEMs, outsourcers, and possibly Third Part Maintenance organizations where both the understanding of the functionality and perceived value will be high. And, INPUT believes that a focus on direct sales to technical support personnel (rather than end-users) such as systems administrators, should be considered as a second tier strategy.

Finally, providing an "interesting" and easy to use interface (as planned for the Prism product) can add considerable market appeal to the product.

VIII

Conclusions and Recommendations

Technical support services staff utilize a variety of stand alone and network diagnostic tools. The demand for these utility and network management software applications has an estimated growth rate of 20% over the next several years.

Current market offerings are positioned as either network management tools focusing on access to devices on the network and provide other network management functions, or, diagnostic tools focusing on personal computer or workstation performance. INPUT believes that there is a window of market opportunity for a workspace management product that combines the functionality of a desktop computer diagnostic tool and a network management application.

Technical support services personnel are interested in a product that would help them differentiate between hardware, software, and network problems. They believe that there is no product currently on the market that can provide that functionality.

As the market for personal computers remains flat, an exciting market opportunity comes from the service opportunities offered by the huge installed base of DOS and Windows/DOS machines in the business environment.

There are four important market participants that are positioned to offer technical support services and are interested in a support application like the one described by CyberMedia: OEMs, Outsourcers, Third Party Service vendors, and consulting firms offering consulting on downsizing.

A

Conclusions

1. Market Opportunity

- The growth rate in PC shipments has slowed, software for personal computers continues to grow.

- The integration of PC's into local area networks and client/server environments has created an accelerated demand for operating system, diagnostic, and network management software.

- Growth rates in shipments of utilities products have exceeded 20% over the past two years.

- New market entries delivering memory management, LAN management, and other support functions are increasing.

- High growth rates of operating environment software such as Windows and OS/2 will create additional demand for operations management products.

2. Technical Support Services

- The majority of desktop computers in the U.S. business environments are DOS or Windows/DOS based (by at least 80% according to survey results).

- End-users want support in diagnosing and resolving systems problems.

- Typically the highest percentage of problems faced by technical support staffs (internal and external) are application software or network based.

- External technical support providers estimate that 80% of all support problems are handled by phone.
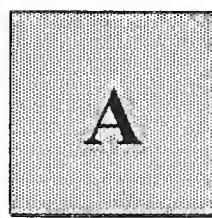
3. Market Channels

- Currently, most utility and diagnostic products are sold through retail channels.

- The retail channel is crowded and facing price competition.

- OEM's in searching for ways to distinguish their products, are interested in support software to differentiate their service offerings.

- Outsourcers have extended their service offerings to include the support of desktop computing and typically are searching for ways to increase their support of all client computing needs.

B
Recommendations

- Focus on providing remote access functionality.

- Market/promote unique product features such as the ability to differentiate between software, hardware and network problems and the ability to serve both as a network and workstation manager.

- Position Prism to take advantage of the transition of market operating systems from DOS to Windows.

- Market Prism initially through OEMs, outsourcers and systems administrators.

- Schedule direct or retail delivery of Prism as a secondary marketing strategy.

- Have an outsourcing firm, third party service vendor or OEM participate in an alpha test of the Prism product.

- Investigate marketing opportunities for Prism with professional service firms such as Andersen Consulting who are increasingly involved in developing downsizing applications for their clients.

- Conduct additional research on CyberMedia product functionality and the strengths of competing products.

A

Survey Information

Appendix A contains:

- Company Name List of Survey Respondents

- Copy of OEM/Outsourcer Survey

- Copy of the Systems Administrator Survey

Survey Respondent Company Names

1. Systems Administration Survey Respondents

American Express
Arizona Department of Education
Bankers & Shippers Insurance Company
Brookhaven Laboratories
City of Longview
Cray Research
Culpeper Farmers Insurance
Dial Corporation
Diamond Chain Company
Dole Packaged Food Company
Enron Oil and Gas
Frito Lay Incorporation
Harmon Publishing
Ingersoll Milling and Machine Co.
Klemp Corporation
Radford Munitions Plant

2. OEM/Outsourcer Survey

Bell Atlantic Service Corporation
Electronic Data Systems
General Electric Computer Services
Hewlett Packard Corporation
Motorola
Digital Equipment Corporation
Systematics

OEM QUESTIONNAIRE: CYBERMEDIA

I)   **What is the level of expertise concerning PC's of the user base you offer technical support to?**

      A.   **User sophistication**

            -Expert   _____%

            -Computer Literate   _____%

            -Novice   _____%

      B.   **What percentage of questions come directly from:**

            -End-users   _____%

            -System administrators   _____%

            -Technical support staffs   _____%

II)   **Description of current technical support services**
(Please mark YES or NO)

      1-Toll-free hotline   _____

      2-24 hour support   _____

      3-On-site service   _____

      4-On-line support   _____

      5-Other: _____

III)   **Please describe the size and costs of your technical support operation**

      1-Staff size   _____

      2-Cost per PC for support   _____

      3-Training time for personnel _____

      4-Average time per call   _____

      5-Total expenses for support   _____

A.   Operating Systems: _____%
B.   Applications: _____%

VIII. Are any types of software diagnostic programs currently used in technical support? (Functionality? Platform, what kind of problems do they address? Cost?)

Product Name 1:

_____

Product Name 2:

_____

IX.   How do you learn about new diagnostic tools?

Trade Magazines
User Group Meetings   _____
VAR or dealer advertising   _____
Driect marketign by producer   _____
Colleagues   _____
Bundled with another product   _____
                               _____

Other _____

X)   Feature Rating of Cybermedia product
Please rate the following product features for a PC diagnostic tool, from 1-5 in order of importance. (1 is most important)

1.   Health Check   **Rating:_____**

Health Check can be initiated as part of the standard log on procedure, or can be invoked by a user when a problem is encountered. When invoked, Health Check will run diagnostic tests on the hardware and software and will analyze DOS and Windows configurations and setup files.

2.   Help Desk   **Rating:_____**

Help Desk offers context sensitive help on ways to fix reported problems. This is an interactive process starting with the presentation of symptoms and continues by prompting the user to better describe the problem, then questioning the user to narrow the diagnosis.

3.   Remote Access   **Rating:_____**

If a PC has a modem or is on a local area network, the product can be accessed from a remote PC so technical staff can diagnose the PC and provide relevant help.

4.   Vital Statistics   **Rating:_____**

If the user is not able to resolve the problems and needs to call support staff, the necessary documentation regarding the PC (warranties, settings, etc.) can be retrieved and given to the tech support person.

4.　　**Vital Statistics**　　　　　　　　　Rating:_____

If the user is not able to resolve the problems and needs to call support staff, the necessary documentation regarding the PC (warranties, settings, etc.) can be retrieved and given to the tech support person.

5.　　**Tuneup**　　　　　　　　　　　　Rating:_____

Tuneup will analyze the current configuration settings of a personal computer and suggest ways of improving the performance of the PC. It will feature a "performance-meter" that shows the current performance level of the PC.

XI)　　**Are there other features you would like to see in a product of this type?**

XII)　　**Have you heard of the new Compaq diagnostic product called RemotePaq?**

XIII)　　**A. Would you be interested in bundling a product of this type with your computers?**

　　　　B. Are you planning to ship a product of this type to your customers?

XIX)　　**If this product were shipped with every PC, what price would you be wiling to pay per PC?**

XX)　　**Do you think the shipment of this product to your customers would reduce your support costs? By what percent?**

QUESTIONNAIRE: CYBERMEDIA
(System Administrators)

I. **What models and approximately how many personal computers do you currently offer technical support for?** (If other category is used, please obtain the name of PC company and the personal computer model)

IBM PC   _____   IBM OS2   _____

DELL   _____   HP   _____

COMPAQ   _____   OTHER   _____

AT&T   _____   OTHER   _____

II. **How often do you use technical support services offered by OEMs?**
(OEMs are original equipment manufacturers)

A. Once a week   _____

B. Twice a month   _____

C. Less than once a month   _____

D. Only when equipment is initially purchased   _____

E. Other:_____

III. **What is the level of technical expertise concerning PC's of the user base you offer technical support to?**

A.   **For System administrators and Outsourcers:**
        Please rate the technical sophistication of users asking for technical support.

        -What percent of your users are "Experts" _____%

        -What percent are "Computer Literate"   _____%

        -What percent are "Novice users"   _____%

IV. Please describe current technical support services offered by your company. (Please mark YES or NO)

1-Toll-free Hotline: _____
2-24 hour services: _____
3-On-site service: _____
4-On-line support: _____
5-Other: (Please describe)

_____

_____

_____

V. Do any Third Party Maintenance Vendors provide support for your PCs or networks? (Please company name and type of service offered)

A. Vendor 1: _____

_____

B. Vendor 2: _____

_____

VI. Please describe the size of your technical support operation.

1-Staff size: _____

2-Cost per PC for support _____

3-Average training time
for personnel _____

VII. What percent of problems are handled by:

Phone _____%

On-site visits _____%

Other _____%

_____

(Please obtain an explanation of services offered if "Other" category is used)

VIII. **What kinds of problems are most frequent when providing technical support service for PC users?**

PROBLEMS	YES/NO	Frequency (1-5; 5 = high)
A. Hardware problems		
1-PC boards	_____	_____
2-Communications Cards	_____	_____
3-printers	_____	_____
4-Modem	_____	_____
5-Additional RAM	_____	_____
B. Configuration problems		
1-Windows set-up (WINI.INI etc.)	_____	_____
2-DOS and system files Corruption	_____	_____
3-Device driver/ IRQ conflicts	_____	_____
4-Memory management problems	_____	_____
5-Other		
(please list): _____	_____	_____
_____	_____	_____
_____	_____	_____
C. Application problems		
1-Application set-up	_____	_____
2-Version mismatch	_____	_____
3-Other _____	_____	_____
_____	_____	_____
_____	_____	_____
D. Network problems		
1-File sharing/Access Control problems	_____	_____
2-Printer/Printing problems	_____	_____
3-Network Resources Usage Problems	_____	_____
4-Other _____	_____	_____
_____	_____	_____
_____	_____	_____
E. Performance Degradation Problems		
1-Server too slow	_____	_____
2-Network too slow	_____	_____
3-Client workstations too slow	_____	_____
4-Others _____	_____	_____
F. OTHER PROBLEMS?		
(Please list) _____	_____	_____
_____	_____	_____
_____	_____	_____

IX. **Have you purchased software diagnostic programs that are currently being used in technical support?** (For each product named please answer the questions A-C)

Product
Name 1: _____

Product
Name 2: _____

Product
Name 3: _____

A. What computer platform are they designed for? _____

B. What kind of problems do they address? _____

C. Cost? _____

X. **How did you learn about diagnostic tools you have purchased?**
(Please mark YES or NO)

Trade Magazines (Byte etc.) _____
On-line bulletin boards or forums _____
VAR or dealer advertising _____
Direct marketing by producer _____
Bundled with another product _____
Colleagues _____
Outside consultants _____
Other _____

XI. **Feature Rating of Cybermedia product**
Rate on a scale of 1-5 which program features are most important. (1 is most important)

1. **Health Check** Rating:_____

Health Check can be initiated as part of the standard log on procedure, or can be invoked by a user when a problem is encountered. When invoked, Health Check will check selected states of the PC and its relationship to: peripherals, network access, memory configuration, and additions of RAM or memory/video cards and finally application set-up. A detailed report on problems can be printed if desired.

2. **Help Desk** Rating:_____

Help Desk offers context sensitive help on ways to fix reported problems. This is an interactive process starting with the presentation of symptoms and continues by prompting the user to better describe the problem, then questioning the user to narrow the diagnosis.

3. **TuneUp** Rating:_____

TuneUp will analyze the current configuration settings of a personal computer and suggest ways of improving the performance of the PC. It will feature a "performance-meter" that shows the current performance level of the PC.

4. **Vital Statistics** **Rating:_____**

If the user is not able to resolve the problems and needs to call support staff, the necessary documentation regarding the PC (settings, warranty details, etc.) can be retrieved and given to the tech support person. This feature will also give information on the DIP switch settings in each card used and how these DIP switches should be set.

5. **Remote Access** **Rating:_____**

If a PC has a modem or is on a local area network, PC/Prism can be accessed from a remote PC so that the Technical Support person can diagnose the PC and provide relevant help.

XII. **Are there other features you would like to see in a product of this type?**

XIII. **Please note what price you would be willing to pay for this product.**

About INPUT

INPUT is a worldwide consulting and market research firm uniquely focused on the information technology services and software markets. Executives in many technically advanced companies in North America, Europe, and Japan rely on INPUT for data, objective analysis, and insightful opinions to support their business plans, market assessments, and technology directions. By leveraging INPUT's considerable knowledge and expertise, clients make informed decisions more quickly, and benefit by saving on the cost of internal research.

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